

STAT

Approved For Release 2009/04/02 : CIA-RDP89-00244R000300150001-7

SH&G

December 1, 1983  
13155

Central Intelligence Agency  
New Building Project Office  
Room 4E50  
CIA Headquarters Building  
Washington, DC 20505

STAT

Attention:

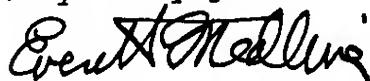
Re: Final Chiller Bid Package  
Log 317

Gentlemen:

Transmitted herewith is one photoready copy and one photocopy of the entire bid package for the chillers.

This specification is based upon using five chillers of 1600 tons each as we recently agreed.

Very truly yours,



Wm. Everett Medling, AIA  
Project Manager

WEM:clm  
Enclosures

Smith, Hinchman & Grylls Associates, Inc.

455 West Fort Street Detroit, Michigan 48226 313/964-3000 810/221-9463 Telex  
Architects Engineers Planners  
A Member of The Smith Group Inc.



SH&G 13155 BP-3SC  
CENTRAL INTELLIGENCE AGENCY  
HEADQUARTERS EXPANSION  
BID PACKAGE 3SC  
SUPPLY CONTRACT - CHILLERS

SECTION 00010 PAGE 1  
DATE 11/28/83 TIME 17.929  
TITLE PAGE

7 20)  
7 30)  
7 40) PROJECT MANUAL  
7 50) FOR  
7 60) BID PACKAGE 3SC  
7 70) SUPPLY CONTRACT - CHILLERS  
7 80) FOR  
7 90) HEADQUARTERS EXPANSION  
10) CENTRAL INTELLIGENCE AGENCY  
11) WASHINGTON, D.C.  
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7 280)  
7 290) SMITH, HINCHMAN & GRYLLS ASSOCIATES, INC.  
300) ARCHITECTS - ENGINEERS - PLANNERS  
310) 455 WEST FORT STREET  
320) DETROIT, MICHIGAN 48226  
7 330) PROJECT NO. 13155 BP-3SC  
340) DECEMBER 1, 1983

\*\*\*END OF SECTION

CENTRAL INTELLIGENCE AGENCY  
HEADQUARTERS EXPANSION  
BID PACKAGE 3SC  
SUPPLY CONTRACT - CHILLERS

7	1) DOCUMENT/	
7	2) SECTION NO.	TITLE
7	3) -----	-----
7	4)	
7	5) BIDDING REQUIREMENTS	
7	6) 00010	TITLE PAGE
7	7) 00015	TABLE OF CONTENTS
7	8) -	+SOLICITATION, OFFER, AND AWARD
7	9)	(STANDARD FORM 33-A - REV. 3-77)
7	10) 00033ATTA	ATTACHMENT 'A' TO STANDARD FORM 33
7	11)	(CHILLERS)
7	12) 00033M	+MODIFICATION TO STANDARD FORM 33
7	13) -	+SOLICITATION INSTRUCTIONS AND CONDITIONS
7	14)	(STANDARD FORM 33A - REV. 1-78)
7	15) CONDITIONS OF THE CONTRACT	
7	16) -	+GENERAL PROVISIONS (SUPPLY CONTRACT)
7	17)	(STANDARD FORM 32 - REV. 4-75)
7	18) -	+GSA SUPPLEMENTAL PROVISIONS
7	19)	(GSA FORM 1424 - REV. 9-78)
7	20) -	+MODIFICATION OF GSA SUPPLEMENTAL PROVISIONS
7	21) 00110	SPECIAL CONDITIONS
7	22)	(SUPPLY CONTRACT)
7	23) 00110A	APPENDIX 'A' - WARRANTY
7	24) SPECIFICATIONS	
7	25) DIVISION 1 - GENERAL REQUIREMENTS	
7	26) 01310	SCHEDULE AND TIME OF COMPLETION
7	27) 01340	SHOP DRAWINGS, PRODUCT DATA AND SAMPLES
7	28) 01340A	APPENDIX 'A' - GOVERNMENT'S SUBMITTALS REVIEW STAMP
7	29) 01600	DELIVERY AND STORAGE
7	30) DIVISION 15 - MECHANICAL	
7	31) 15600	CHILLERS
7	32) + -	DOCUMENT TO BE INSERTED BY GSA.

\*\*\*END OF SECTION

CENTRAL INTELLIGENCE AGENCY  
HEADQUARTERS EXPANSION  
BID PACKAGE 3SC  
SUPPLY CONTRACT - CHILLERS

7 2)

12 3) ATTACHMENT 'A'  
4) TO SF33  
5) (CHILLERS)

7 6)

7 7) CONTRACT GS-11C-.....

7 8) BIDDER'S NAME: .....

7 9)

7 10) 1. BID PRICE FOR FIVE CHILLERS, F.O.B. PROJECT SITE, INCLUDING  
11) INSTALLATION SUPERVISION, START-UP SERVICES AND TRAINING  
12) OF GOVERNMENT OPERATORS:

7 13) ..... DOLLARS

7 14) (\$.....)

7 15) THE BIDDER AFFIRMS THAT THE BID PRICE INCLUDES COSTS FOR THE  
16) FOLLOWING ITEMS:

7 17) START-UP SERVICES AT A MINIMUM OF FIVE MAN-DAYS PER  
18) CHILLER.

7 19) TRAINING OF GOVERNMENT OPERATORS AT A MINIMUM OF THREE  
20) MAN-DAYS PER CHILLER.

7 21) 2. DELIVERY SCHEDULE

7 22) IN ACCORDANCE WITH SECTION 01310.

7 23) 3. PAYMENT SCHEDULE

7 24)	TENTATIVE DATE	NO. OF	UNIT	PRICE
25)	OF BENEFICIAL	UNITS	PRICE	EXTENSION
26)	ACCEPTANCE	-----	-----	-----
27)	-----	-----	-----	-----

7 28) APRIL 1, 1985 TWO \$..... \$.....

7 29) APRIL 1, 1986 THREE \$..... \$.....

7 30)

7 31) 4. DATE BY WHICH BIDDER MUST RECEIVE APPROVED SHOP DRAWINGS,  
32) PRODUCT DATA AND RELATED SUBMITTALS IN ORDER TO MEET  
33) SPECIFIED DELIVERY DATE:

7 34) ..... 1984.

\*\*\*END OF SECTION

ARTICLE	INDEX	LINE
1. DEFINITIONS		1
2. NONPUBLICITY		41
3. BIDDING REQUIREMENTS		50
4. FOREIGN OWNERSHIP CONTROL OR INFLUENCE		71
5. ADMINISTRATION OF THE CONTRACT		86
6. LIQUIDATED DAMAGES		101
7. WARRANTIES AND GUARANTIES		124
8. LAWS, ORDINANCES AND REGULATIONS		151
9. PATENT INDEMNITY		169
10. INSURANCE		175
11. SUCCESSORS AND ASSIGNS		191
12. WRITTEN NOTICE		199
13. CLAIMS FOR DAMAGES		205
14. RIGHTS AND REMEDIES		211
15. ASSIGNMENT OF CONTRACT		221

\*\*\*END OF INDEX

- 1 1) 1. DEFINITIONS
- 2 2) THE CONTRACT DOCUMENTS
- 3 3) THE CONTRACT DOCUMENTS CONSIST OF THE SUPPLY CONTRACT (BETWEEN THE GOVERNMENT AND THE CONTRACTOR), THE CONDITIONS OF THE CONTRACT (GENERAL AND SUPPLEMENTAL PROVISIONS, SPECIAL CONDITIONS, AND RELATED DOCUMENTS), THE DRAWINGS, THE SPECIFICATIONS, AND ALL ADDENDA ISSUED PRIOR TO AND ALL CHANGES ISSUED AFTER EXECUTION OF THE CONTRACT. CHANGES ARE DEFINED IN CLAUSE NO. 2 OF THE GENERAL PROVISIONS.
- 2 9) THE PROJECT
- 3 10) THE PROJECT IS THE TOTAL CONSTRUCTION OF WHICH THE SUPPLIES FURNISHED UNDER THE CONTRACT DOCUMENTS ARE A PART.
- 2 12) THE ARCHITECT
- 3 13) THE ARCHITECT IS:
  - 7 14) SMITH, HINCHMAN & GRYLLS ASSOCIATES, INC.
    - 15) 455 WEST FORT STREET
    - 16) DETROIT, MICHIGAN 48226
  - 3 17) THE TERM "'ARCHITECT'" MEANS THE ARCHITECT OR HIS AUTHORIZED REPRESENTATIVE.
  - 2 19) THE CONTRACTOR
  - 3 20) THE CONTRACTOR IS THE INDIVIDUAL, PARTNERSHIP, JOINT VENTURE, OR CORPORATION NAMED IN THE SUPPLY CONTRACT, REFERRED TO FROM TIME TO TIME, AS "'SUPPLY CONTRACTOR'", FOR PURPOSES OF CLARIFICATION.
  - 2 23) THE INSTALLING CONTRACTOR

DATE 11/30/83 TIME 20.175

SPECIAL CONDITIONS  
(SUPPLY CONTRACT)SH&G 13155 BP-3SC  
CENTRAL INTELLIGENCE AGENCY  
HEADQUARTERS EXPANSION  
BID PACKAGE 3SC  
SUPPLY CONTRACT - CHILLERS

3 24) THE INSTALLING CONTRACTOR IS THE ORGANIZATION WHOSE CONTRACT WITH THE  
25) GOVERNMENT FOR WORK ON THE PROJECT INCLUDES RESPONSIBILITY FOR  
26) RECEIVING, TRANSPORTING AFTER RECEIPT, STORING AS APPROPRIATE AND  
27) INSTALLING THE SUPPLIES. THE INSTALLING CONTRACTOR WILL BE THE  
28) CONTRACTOR FOR BID PACKAGE 3 - POWERHOUSE.

2 29) BENEFICIAL ACCEPTANCE

3 30) BENEFICIAL ACCEPTANCE FOR ANY ITEM OF SUPPLIES IS THE DATE THE  
31) GOVERNMENT PLACES THAT ITEM IN USE FOR ITS INTENDED PURPOSE,  
32) SUBSEQUENT TO ONSITE OPERATION FOR START-UP AND TESTING.

2 33) MISCELLANEOUS DEFINITIONS

3 34) THE TERM "SUPPLIES" SHALL BE READ TO INCLUDE, WITHOUT LIMITATION,  
35) RAW MATERIALS, COMPONENTS INTERMEDIATE ASSEMBLIES AND END PRODUCTS TO  
36) BE FURNISHED UNDER THE CONTRACT. (REFER TO CLAUSE NO. 5 OF THE GENERAL  
37) PROVISIONS).

3 38) THE TERM "PER" MEANS "IN ACCORDANCE WITH THE REQUIREMENTS OF".

3 39) THE TERM "AS APPROVED" MEANS "OR EQUAL" AS DESCRIBED IN ARTICLE  
40) NO. 32 OF THE GSA SUPPLEMENTAL PROVISIONS.

1 41) 2. NONPUBLICITY

2 42) IT IS A SPECIFIC CONDITION OF THE CONTRACT THAT THE CONTRACTOR SHALL NOT  
43) USE OR ALLOW TO BE USED ANY ASPECT OF THIS AGREEMENT FOR PUBLICITY OR  
44) ADVERTISEMENT PURPOSES.

2 45) IT IS FURTHER UNDERSTOOD THAT THIS OBLIGATION SHALL NOT EXPIRE UPON  
46) COMPLETION OR TERMINATION OF THE CONTRACT BUT WILL CONTINUE INDEFINITELY.

2 47) THE CONTRACTOR MAY REQUEST A WAIVER OR RELEASE FROM THE FOREGOING BUT  
48) SHALL NOT DEVIATE THEREFROM UNLESS SO AUTHORIZED IN WRITING BY THE  
49) GOVERNMENT.

1 50) 3. BIDDING REQUIREMENTS

2 51) BIDDER SHALL ENTER IN SECTION 00033ATTA, "ATTACHMENT 'A' TO SF33  
52) (CHILLERS)", ALL INFORMATION REQUESTED. REFER TO STANDARD FORM 33-A.

3 53) BID PRICE SHALL BE A LUMP SUM FOR DELIVERY OF THE SPECIFIED SUPPLIES  
54) F.O.B. PROJECT SITE BY THE DATE SPECIFIED IN SECTION 01310, "SCHEDULE  
55) AND TIME OF COMPLETION", AND SHALL INCLUDE ALL COSTS ASSOCIATED WITH  
56) THE SPECIFIED START-UP SERVICES AND TRAINING OF GOVERNMENT OPERATORS.

4 57) THE BIDDER SHALL AFFIRM IN HIS BID THAT THE BID PRICE INCLUDES  
58) COSTS FOR THE AFOREMENTIONED START-UP SERVICES AND TRAINING OF  
59) GOVERNMENT OPERATORS AT THE RESPECTIVE NUMBER OF MAN-DAYS STATED IN  
60) ATTACHMENT 'A' TO SF33 FOR EACH FUNCTION.

3 61) RESPECTIVE UNIT PRICE AMOUNTS ENTERED UNDER THE PAYMENT SCHEDULE SHALL  
62) REFLECT THE SPECIFIED REQUIREMENT THAT WARRANTIES SHALL, IN EACH CASE,  
63) BEGIN ON THE DATE OF BENEFICIAL ACCEPTANCE. THE TOTAL OF THE PRICE  
64) EXTENSIONS SHALL EQUAL THE BID PRICE.

3 65) IN ESTABLISHING DATE BY WHICH BIDDER MUST RECEIVE SHOP DRAWINGS,  
66) PRODUCT DATA AND RELATED SUBMITTALS IN ORDER TO MEET THE SPECIFIED  
67) DELIVERY DATE, BIDDER SHALL CONSIDER THE FACT THAT FOR EACH SUBMITTAL,  
68) ARCHITECT WILL REQUIRE 14 CALENDAR DAYS FROM DATE SUBMITTAL ENTERS  
69) ARCHITECT'S OFFICE UNTIL THE SUBMITTAL LEAVES TO RETURN TO THE  
70) CONTRACTOR.

1 71) 4. FOREIGN OWNERSHIP CONTROL OR INFLUENCE

2 72) VENDORS RESPONDING TO THIS REQUEST FOR PROPOSAL (RFP) ARE ADVISED THAT IT  
73) IS THE GOVERNMENT'S INTENT TO SECURE SERVICES OR EQUIPMENT FROM FIRMS  
74) WHICH ARE NOT UNDER FOREIGN OWNERSHIP, CONTROL, OR INFLUENCE (FOCI) OR  
75) WHERE ANY FOCI MAY, IN THE OPINION OF THE GOVERNMENT ADVERSELY IMPACT ON  
76) GOVERNMENT SECURITY REQUIREMENTS. ACCORDINGLY, ALL FIRMS RESPONDING TO  
77) THIS RFP OR INITIATING PERFORMANCE OF A CONTRACT ARE REQUIRED TO SUBMIT A  
78) DOD FORM 441S (CERTIFICATE PERTAINING TO FOREIGN INTERESTS) WITH THEIR  
79) PROPOSAL OR PRIOR TO CONTRACT PERFORMANCE (AS APPROPRIATE). DOD FORM 441S  
80) ENTRIES SHALL SPECIFY, WHERE NECESSARY, THE IDENTITY, NATURE, DEGREE, AND  
81) IMPACT OF ANY FOCI ON THEIR ORGANIZATION OR ACTIVITIES.

2 82) NOTWITHSTANDING THE LIMITATION ON CONTRACTING WITH A VENDOR UNDER FOCI  
83) IDENTIFIED ABOVE, THE GOVERNMENT RESERVES THE RIGHT TO CONTRACT WITH SUCH  
84) FIRMS UNDER APPROPRIATE ARRANGEMENTS, WHEN IT DETERMINES THAT SUCH  
85) CONTRACTS WILL BE IN THE BEST INTEREST OF THE GOVERNMENT.

1 86) 5. ADMINISTRATION OF THE CONTRACT

2 87) THE GOVERNMENT

3 88) THE CONTRACT WILL BE ADMINISTERED BY THE CONTRACTING OFFICER ON BEHALF  
89) OF THE UNITED STATES OF AMERICA (REFERRED TO THROUGHOUT THE CONTRACT  
90) DOCUMENTS AS THE GOVERNMENT).

2 91) THE ARCHITECT

3 92) THE ARCHITECT, (AS REQUIRED BY SEPARATE CONTRACT) UNDER SUPERVISION OF  
93) THE GOVERNMENT, WILL, AS PERTINENT TO THIS SUPPLY CONTRACT:  
4 94) PROVIDE REVIEW AND APPROVAL OF ALL SHOP DRAWINGS, PRODUCT DATA,  
95) SAMPLES, SCHEDULES, ETC., SUBMITTED BY THE CONTRACTOR.  
4 96) REVIEW AND CERTIFY THE VALIDITY OF THE CONTRACTOR'S APPLICATIONS  
97) FOR PAYMENT.

2 98) COMMUNICATIONS

3 99) THE CONTRACTOR SHALL FORWARD ALL COMMUNICATIONS TO THE ARCHITECT  
100) THROUGH THE CONTRACTING OFFICER.

1 101) 6. LIQUIDATED DAMAGES

2 102) REFER TO ARTICLE 11 - DEFAULT, OF THE GENERAL PROVISIONS. REDESIGNATE  
103) PARAGRAPHS 11(F) AND 11(G) THERIN AS 11(G) AND 11(H) RESPECTIVELY, AND  
104) INSERT THE FOLLOWING:

7 105) (F) (I) IN THE EVENT THE GOVERNMENT EXERCISES ITS RIGHT OF  
106) TERMINATION AS PROVIDED IN PARAGRAPH (A) ABOVE, THE  
107) CONTRACTOR SHALL BE LIABLE TO THE GOVERNMENT FOR EXCESS  
108) COSTS AS PROVIDED IN PARAGRAPH (B) ABOVE AND, IN ADDI-  
109) TION, FOR LIQUIDATED DAMAGES, IN THE AMOUNT OF  
110) \$500.00 AS FIXED, AGREED, AND LIQUIDATED DAMAGES  
111) FOR EACH CALENDAR DAY OF DELAY, UNTIL SUCH TIME AS THE  
112) GOVERNMENT MAY REASONABLY OBTAIN DELIVERY OF SIMILAR  
113) SUPPLIES OR PERFORMANCE OF SIMILAR SERVICES.

7 114) (II) IF THE CONTRACT IS NOT SO TERMINATED, NOTWITHSTANDING  
115) DELAY, AS PROVIDED IN PARAGRAPH (A) ABOVE, THE CONTRACT-  
116) OR SHALL CONTINUE PERFORMANCE AND BE LIABLE TO THE  
117) GOVERNMENT FOR SUCH LIQUIDATED DAMAGES FOR EACH CALENDAR  
118) DAY OF DELAY UNTIL THE SUPPLIES ARE DELIVERED OR SER-  
119) VICES PERFORMED.

7 120) (III) THE CONTRACTOR SHALL NOT BE LIABLE FOR LIQUIDATED  
121) DAMAGES FOR DELAYS DUE TO CAUSES WHICH WOULD RELIEVE  
122) HIM FROM LIABILITY FOR EXCESS COSTS AS PROVIDED IN PARA-  
123) GRAPH (C) OF THIS CLAUSE.

1 124) 7. WARRANTIES AND GUARANTIES

2 125) WARRANTY

3 126) THE CONTRACTOR WARRANTS TO THE GOVERNMENT THAT ALL SUPPLIES FURNISHED  
127) UNDER THIS CONTRACT WILL BE NEW UNLESS OTHERWISE SPECIFIED, AND THAT  
128) ALL WORK WILL BE OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN  
129) CONFORMANCE WITH THE CONTRACT DOCUMENTS. ALL WORK NOT CONFORMING TO  
130) THESE REQUIREMENTS, INCLUDING SUBSTITUTIONS NOT PROPERLY APPROVED AND  
131) AUTHORIZED, MAY BE CONSIDERED DEFECTIVE. IF REQUIRED BY THE CONTRACT  
132) DOCUMENTS OR THE CONTRACTING OFFICER, THE CONTRACTOR SHALL FURNISH  
133) SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF SUPPLIES  
134) FURNISHED. THIS WARRANTY IS NOT LIMITED BY THE PROVISIONS FOR  
135) CORRECTION OF DEFECTIVE OR NON-CONFORMING WORK HEREIN.

2 136) CORRECTION OF DEFECTS

3 137) IF, WITHIN ONE YEAR AFTER BENEFICIAL ACCEPTANCE BY THE OWNER OF  
138) DESIGNATED SUPPLIES OR WITHIN SUCH LONGER PERIOD OF TIME AS MAY BE  
139) PRESCRIBED BY LAW OR BY THE TERMS OF ANY APPLICABLE SPECIAL WARRANTY  
140) REQUIRED BY THE CONTRACT DOCUMENTS, ANY SUPPLIES ARE FOUND TO BE  
141) DEFECTIVE OR NOT IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, THE  
142) CONTRACTOR SHALL MAKE CORRECTION PROMPTLY AFTER RECEIPT OF A WRITTEN  
143) NOTICE FROM THE GOVERNMENT TO DO SO, UNLESS IN THE PUBLIC INTEREST THE  
144) GOVERNMENT CONSENTS TO ACCEPT SUCH SUPPLIES WITH AN APPROPRIATE  
145) ADJUSTMENT IN CONTRACT PRICE. THIS OBLIGATION SHALL SURVIVE  
146) TERMINATION OF THE CONTRACT.

2 147) PRIOR TO FINAL PAYMENT, SUBMIT TO THE CONTRACTING OFFICER A WARRANTY FOR  
148) EACH GROUP OF SUPPLIES DIFFERENTIATED BY A WARRANTY PERIOD (DIFFERING  
149) STARTING AND ENDING DATES). EACH WARRANTY SHALL BE IN TRIPPLICATE IN THE  
150) FORM SHOWN IN SECTION D0110A, "APPENDIX 'A' WARRANTY".

1 151) 8. LAWS, ORDINANCES AND REGULATIONS

2 152) THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL  
153) LAWS, ORDINANCES, AND REGULATIONS, AND SHALL REQUIRE SUCH COMPLIANCE, BY  
154) ALL OTHER PERSONS WITH WHOM HE SHALL ENTER INTO ANY CONTRACT PERTAINING  
155) TO THE WORK. THE CONTRACTOR SHALL BE LIABLE FOR AND INDEMNIFY AND HOLD  
156) HARMLESS THE GOVERNMENT, AND THE ARCHITECT AND THEIR RESPECTIVE  
157) CONSULTANTS, AGENTS AND EMPLOYEES FROM ANY AND ALL LIABILITY OR DAMAGE  
158) ARISING BY REASON OF THE BREACH OF THE PROVISIONS HEREIN SET FORTH.

2 159) IT IS NOT THE RESPONSIBILITY OF THE CONTRACTOR TO MAKE CERTAIN THAT THE  
160) CONTRACT DOCUMENTS ARE IN ACCORDANCE WITH APPLICABLE LAWS, ORDINANCES AND  
161) REGULATIONS. HOWEVER, IF THE CONTRACTOR OBSERVES THAT ANY OF THE CONTRACT  
162) DOCUMENTS ARE AT VARIANCE THEREWITH IN ANY RESPECT, HE SHALL PROMPTLY  
163) NOTIFY THE CONTRACTING OFFICER AND ANY NECESSARY CHANGES SHALL BE  
164) ACCOMPLISHED BY APPROPRIATE CHANGE ORDER.

2 165) IF THE CONTRACTOR PERFORMS ANY WORK KNOWING IT TO BE CONTRARY TO SUCH  
166) LAWS, ORDINANCES, AND REGULATIONS, AND WITHOUT SUCH NOTICE TO THE  
167) CONTRACTING OFFICER, HE SHALL ASSUME FULL RESPONSIBILITY THEREFOR AND  
168) SHALL BEAR ALL COSTS ATTRIBUTABLE THERETO.

CENTRAL INTELLIGENCE AGENCY  
HEADQUARTERS EXPANSION  
BID PACKAGE 3SC  
SUPPLY CONTRACT - CHILLERS

1 169) 9. PATENT INDEMNITY

2 170) REFER TO CLAUSE NO. 39 OF THE SUPPLEMENTAL PROVISIONS. EDIT INTERNALLY AS  
171) FOLLOWS:

3 172) FOLLOWING THE WORD "EMPLOYEES" IN THE FIRST SENTENCE, INSERT THE  
173) PHRASE "AND THE ARCHITECT, AND HIS CONSULTANTS, AGENTS AND  
174) EMPLOYEES".

1 175) 10. INSURANCE

2 176) PROPERTY INSURANCE

3 177) THE CONTRACTOR SHALL PURCHASE AND MAINTAIN PROPERTY INSURANCE FOR THE  
178) FULL CONTRACT VALUE THEREOF UPON SUPPLIES FOR WHICH ANY PAYMENT HAS  
179) BEEN MADE AND SUPPLIES WHICH HAVE BEEN DELAYED IN SHIPMENT AT THE  
180) GOVERNMENT'S REQUEST.

3 181) THE CONTRACTOR SHALL FILE TWO CERTIFIED COPIES OF ALL POLICIES WITH  
182) THE CONTRACTING OFFICER BEFORE EXPOSURE TO LOSS CAN OCCUR. IF THE  
183) GOVERNMENT IS DAMAGED BY THE FAILURE OF THE CONTRACTOR TO MAINTAIN  
184) SUCH INSURANCE AND TO SO NOTIFY THE CONTRACTING OFFICER, THEN THE  
185) CONTRACTOR SHALL BEAR ALL REASONABLE COSTS PROPERLY ATTRIBUTABLE  
186) THERETO.

2 187) TRANSIT INSURANCE

3 188) THE CONTRACTOR SHALL PURCHASE AND MAINTAIN DURING SHIPMENT TRANSIT  
189) INSURANCE FOR THE FULL CONTRACT VALUE THEREOF UPON SUPPLIES FOR WHICH  
190) ANY PAYMENT HAS BEEN MADE.

1 191) 11. SUCCESSORS AND ASSIGNS

2 192) THE GOVERNMENT AND THE CONTRACTOR EACH BINDS ITSELF, ITS PARTNERS,  
193) SUCCESEORS, ASSIGNS AND LEGAL REPRESENTATIVES TO THE OTHER PARTY HERETO  
194) AND TO THE PARTNERS, SUCCESEORS, ASSIGNS AND LEGAL REPRESENTATIVES OF  
195) SUCH OTHER PARTY IN RESPECT TO ALL COVENANTS, AGREEMENTS AND OBLIGATIONS  
196) CONTAINED IN THE CONTRACT DOCUMENTS. NEITHER PARTY TO THE CONTRACT SHALL  
197) ASSIGN THE CONTRACT OR SUBLT IT AS A WHOLE WITHOUT THE WRITTEN CONSENT  
198) OF THE OTHER.

1 199) 12. WRITTEN NOTICE

2 200) WRITTEN NOTICE SHALL BE DEEMED TO HAVE BEEN DULY SERVED IF DELIVERED IN  
201) PERSON TO THE INDIVIDUAL OR MEMBER OF THE FIRM OR ENTITY OR TO AN OFFICER  
202) OF THE CORPORATION FOR WHOM IT WAS INTENDED, OR IF DELIVERED AT OR SENT  
203) BY REGISTERED OR CERTIFIED MAIL TO THE LAST BUSINESS ADDRESS KNOWN TO HIM  
204) WHO GIVES THE NOTICE.

1 205) 13. CLAIMS FOR DAMAGES

2 206) SHOULD EITHER PARTY TO THE CONTRACT SUFFER INJURY OR DAMAGE TO PERSON OR  
207) PROPERTY BECAUSE OF ANY ACT OR OMISSION OF THE OTHER PARTY OR OF ANY OF  
208) HIS EMPLOYEES, AGENTS OR OTHERS FOR WHOSE ACTS HE IS LEGALLY LIABLE,  
209) CLAIM SHALL BE MADE IN WRITING TO SUCH OTHER PARTY WITHIN A REASONABLE  
210) TIME AFTER THE FIRST OBSERVANCE OF SUCH INJURY OR DAMAGE.

1 211) 14. RIGHTS AND REMEDIES

2 212) THE DUTIES AND OBLIGATIONS IMPOSED BY THE CONTRACT DOCUMENTS AND THE  
213) RIGHTS AND REMEDIES AVAILABLE THEREUNDER SHALL BE IN ADDITION TO AND NOT  
214) A LIMITATION OF ANY DUTIES, OBLIGATIONS, RIGHTS AND REMEDIES OTHERWISE  
215) IMPOSED OR AVAILABLE BY LAW.

2 216) NO ACTION OR FAILURE TO ACT BY THE CONTRACTING OFFICER, ARCHITECT OR  
217) CONTRACTOR SHALL CONSTITUTE A WAIVER OF ANY RIGHT OR DUTY AFFORDED ANY OF  
218) THEM UNDER THE CONTRACT, NOR SHALL ANY SUCH ACTION OR FAILURE TO ACT  
219) CONSTITUTE AN APPROVAL OF OR ACQUIESCE IN ANY BREACH THEREUNDER,  
220) EXCEPT AS MAY BE SPECIFICALLY AGREED IN WRITING.

1 221) 15. ASSIGNMENT OF CONTRACT

2 222) THE GOVERNMENT RESERVES AND IS HEREBY GRANTED THE RIGHT TO ASSIGN THIS  
223) CONTRACT TO THE INSTALLING CONTRACTOR AND MAKE IT A PART OF THE CONTRACT  
224) FOR BID PACKAGE 3. THE SUPPLY CONTRACTOR AGREES THAT, WHEN SUCH  
225) ASSIGNMENT IS MADE, HE WILL WORK UNDER THE INSTALLING CONTRACTOR IN THE  
226) SAME MANNER AS HE WOULD HAVE HAD THE CONTRACT BEEN ORIGINALLY AWARDED TO HIM  
227) BY THE INSTALLING CONTRACTOR, AND THAT HE WILL BE BOUND TO AND ASSUME  
228) TOWARD THE INSTALLING CONTRACTOR ALL THE OBLIGATIONS AND RESPONSIBILITIES  
229) THAT HE, BY HIS CONTRACT, ASSUMES TOWARD THE GOVERNMENT. IN CASE OF  
230) ASSIGNMENT, PAYMENTS TO THE SUPPLY CONTRACTOR WILL BE BY THE INSTALLING  
231) CONTRACTOR.

\*\*\*END OF SECTION

7 1)  
T

T2 2) WARRANTY

7 3)

7 4) PROJECT TITLE AND LOCATION .....  
7 5) .....  
7 6) .....  
7 7) GOVERNMENT CONTRACT NUMBER .....  
7 8) ARCHITECT PROJECT NUMBER/  
9) CONTRACT IDENTIFIER .....  
7 10) CONTRACTOR PROJECT NUMBER .....  
7 11) WARRANTED SUPPLIES .....  
7 12) .....  
7 13) SPECIFICATION SECTION AND  
14) LINE NUMBER REFERENCE .....  
7 15) LENGTH OF WARRANTY (YEARS) .....  
7 16) CONTRACTOR .....  
7 17) SUBCONTRACTOR .....  
2 18) THE UNDERSIGNED HEREWITHE WARRANT THAT THE ABOVE SUPPLIES HAVE BEEN  
19) MANUFACTURED IN CONFORMANCE WITH THE REQUIREMENTS OF THE CONTRACT  
20) DOCUMENTS FOR THE PROJECT/CONTRACT NAMED AND WARRANT SAID SUPPLIES TO  
21) PERFORM WITHOUT FAILURE AS SPECIFIED FOR THE ABOVE STATED PERIOD OF TIME  
7 22) STARTING ON ..... 198..... AND ENDING ON .....198.....  
2 23) THIS WARRANTY DOES NOT APPLY TO FAILURE TO PERFORM DUE TO ABUSE OR  
24) NEGLECT BY THE GOVERNMENT OR OTHERS OR DAMAGE BY VANDALISM.  
2 25) SUBCONTRACTOR (IF APPLICABLE):  
7 26) SIGNED .....  
7 27) .....  
7 28) TITLE .....  
7 29) NOTARY .....  
7 30) DATE .....  
7 31) CONTRACTOR:  
7 32) SIGNED .....  
7 33) .....  
7 34) TITLE .....  
7 35) NOTARY .....  
7 36) DATE .....

\*\*\*END OF SECTION

Approved For Release 2009/04/02 : CIA-RDP89-00244R000300150001-7 ON 01310 PAGE 1  
CENTRAL INTELLIGENCE AGENCY  
HEADQUARTERS EXPANSION  
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SUPPLY CONTRACT - CHILLERS  
DATE 11/28/83 TIME 17.929  
SCHEDULE AND TIME OF COMPLETION

ARTICLE	INDEX	LINE
SCHEDULE		3
***END OF INDEX		

7	1)	
7	2)	
1	3)	SCHEDULE
2	4) MILESTONE DATES	
7	5) INVITATION FOR BIDS	FEBRUARY 1, 1984.
7	6) BID OPENING	MARCH 1, 1984.
7	7) CONTRACT AWARD	APRIL 1, 1984.
7	8) NOTICE TO PROCEED	APRIL 1, 1984.
7	9) DELIVERY OF FIVE CHILLERS	NOVEMBER 1, 1984.
7	10) TENTATIVE BENEFICIAL	
11)	ACCEPTANCE OF TWO	
12)	CHILLERS	APRIL 1, 1985.
7	13) TENTATIVE BENEFICIAL	
14)	ACCEPTANCE OF THREE	
15)	CHILLERS	APRIL 1, 1986.

\*\*\*END OF SECTION

CENTRAL INTELLIGENCE AGENCY  
HEADQUARTERS EXPANSION  
BID PACKAGE 3SC  
SUPPLY CONTRACT - CHILLERS

DATE 11/28/83 TIME 17.929  
SHOP DRAWINGS, PRODUCT DATA  
AND SAMPLES

ARTICLE	INDEX	LINE
1. GENERAL		1
2. DESCRIPTIONS AND SUBMITTALS		11
3. TRANSMITTAL AND APPROVAL		83
***END OF INDEX		

1 10) 1. GENERAL

2 2) REFER TO SECTION 01340A, "APPENDIX 'A' - GOVERNMENT'S REVIEW STAMP".  
3) WITH FIRST SUBMISSION OF SHOP DRAWINGS, ETC., FURNISH TO CONTRACTING  
4) OFFICER FOUR RUBBER STAMPS IN THE FORM SHOWN IN APPENDIX 'A'. FAILURE TO  
5) FURNISH THESE STAMPS MAY BE CAUSE FOR REJECTION OF THE SUBMITTED  
6) MATERIAL.

2 7) SCHEDULE SHOP DRAWING, PRODUCT DATA AND SAMPLE SUBMITTALS FOR  
8) INTER-RELATED ITEMS AT THE SAME TIME.

2 9) SHOP DRAWINGS SUBMITTED WHICH ARE NOT REQUIRED BY THE SPECIFICATIONS OR  
10) THE CONTRACTING OFFICER WILL BE RETURNED WITH NO COMMENT.

1 11) 2. DESCRIPTIONS AND SUBMITTALS

2 12) MODEL NUMBERS, RATINGS, PERFORMANCE CHARACTERISTICS AND OTHER PERTINENT  
13) DATA SHALL BE CLEARLY MARKED AND IDENTIFIED ON SUBMITTALS. INFORMATION  
14) PERTAINING TO SEVERAL SIZES OR GRADES OF ONE CLASSIFICATION OF SUPPLIES  
15) OR TO SEVERAL COMPONENTS OF A SPECIFIC SYSTEM, SHALL BE BOUND TOGETHER  
16) AND CLEARLY IDENTIFIED. EQUIPMENT OR PRODUCT, SHALL BE BOUND TOGETHER AND  
17) CLEARLY IDENTIFIED. WHERE PRINTED MATERIALS DESCRIBE MORE THAN ONE  
18) PRODUCT OR MODEL, CLEARLY IDENTIFY WHICH IS TO BE FURNISHED.

2 19) SHOP DRAWINGS

3 20) SHOP DRAWINGS ARE DRAWINGS, DIAGRAMS, SCHEDULES AND OTHER DATA  
21) SPECIALLY PREPARED FOR THE WORK BY THE CONTRACTOR OR ANY  
22) SUBCONTRACTOR, MANUFACTURER, SUPPLIER OR DISTRIBUTOR TO ILLUSTRATE  
23) SOME PORTION OF THE WORK.

3 24) SUBMIT SHOP DRAWINGS IN THE FORM OF ONE REPRODUCIBLE TRANSPARENCY AND  
25) TWO COPIES (PRINTED FROM THE TRANSPARENCY). DO NOT SEND MORE THAN THE  
26) SPECIFIED NUMBER OF COPIES. ADDITIONAL COPIES WILL BE DISCARDED.

4 27) TRANSPARENCIES SHALL HAVE AN UNOBSTRUCTED SPACE AT THE RIGHT SIDE  
28) OR BOTTOM OF SIZE NOT LESS THAN 6 INCHES BY 3 INCHES FOR APPROVAL  
29) STAMPS AND DOCUMENT CONTROL NUMBERING.

4 30) TRANSPARENCIES OF THE SAME ITEM OR SYSTEM SHALL BE OF UNIFORM SIZE  
31) AND BE NUMBERED CONSECUTIVELY.

2 32) PRODUCT DATA

3 33) PRODUCT DATA ARE ILLUSTRATIONS, STANDARD SCHEDULES, PERFORMANCE CHARTS  
34) AND TEST DATA, INSTRUCTIONS, BROCHURES, DIAGRAMS AND OTHER INFORMATION  
35) FURNISHED BY THE CONTRACTOR TO ILLUSTRATE AN ITEM OR ELEMENT OF  
36) MATERIAL, EQUIPMENT OR SYSTEM FOR SOME PORTION OF THE WORK.

3 37) SUBMIT PRODUCT DATA (GENERALLY 8-1/2 BY 11 INCH SIZE) IN THE FORM OF  
38) THREE, CLEAR, TOTALLY REPRODUCIBLE COPIES MADE BY REPRODUCTIVE MEANS  
39) ON 8-1/2 BY 14 INCH (LEGAL SIZE) PAPER. THE 3 BY 8-1/2 INCH SPACE  
40) RESULTING FROM THE USE OF LEGAL SIZE PAPER SHALL BE LEFT UNOBSTRUCTED  
41) FOR APPROVAL STAMPS AND NOTATIONS.

3 42) PRODUCT DATA THAT CANNOT BE SUBMITTED IN REPRODUCIBLE FORM, SUCH AS  
43) PAINT COLOR CARDS, SHALL BE SUBMITTED IN FIVE COPIES.

DATE 11/23/83 TIME 17.929  
SHOP DRAWINGS, PRODUCT DATA  
AND SAMPLES

SH&G 13155 BP-3SC  
CENTRAL INTELLIGENCE AGENCY  
HEADQUARTERS EXPANSION  
BID PACKAGE 3SC  
SUPPLY CONTRACT - CHILLERS

## 2 44) SAMPLES

3 45) SAMPLES ARE PHYSICAL EXAMPLES WHICH ILLUSTRATE MATERIALS, EQUIPMENT OR  
46) WORKMANSHIP AND ESTABLISH STANDARDS BY WHICH THE WORK WILL BE JUDGED.

3 47) SUBMIT SAMPLES IN TRIPPLICATE UNLESS DIFFERENT NUMBER IS SPECIFIED.  
48) TRANSPORTATION CHARGES PREPAID, WITH IDENTIFYING LABEL FIRMLY  
49) ATTACHED.

4 50) LABELS SHALL BE OF A SIZE TO RECEIVE APPROVAL STAMPS AND NOTATIONS,  
51) IN ADDITION TO THE IDENTIFYING INFORMATION SPECIFIED BELOW.

## 2 52) TITLE BLOCK

3 53) IN ADDITION TO CONTRACTOR'S, SUBCONTRACTOR'S AND MANUFACTURER'S OR  
54) SUPPLIER'S IDENTIFYING AND APPROVAL INDICATIONS, SHOP DRAWINGS,  
55) PRODUCT DATA AND LABELS FOR SAMPLES SHALL HAVE IDENTIFYING TITLE  
56) BLOCKS. TITLE BLOCKS SHALL CONTAIN:

4 57) PROJECT TITLE.

4 58) NAME OF CONTRACT.

4 59) GOVERNMENT'S CONTRACT NUMBER.

4 60) ARCHITECT'S NAME AND PROJECT NUMBER INCLUDING CONTRACT IDENTIFIER.

4 61) ADDRESS (SECTION AND LINE NUMBERS) IN THE SPECIFICATION SECTION OF  
62) THE REQUIRED SUBMITTAL.

4 63) DATE OF INITIAL SUBMITTAL.

4 64) CONTROL NUMBER.

## 2 65) NOTE:

3 66) SHOP DRAWINGS NOT SUBMITTED IN THE FORM OF REPRODUCIBLE TRANSPARENCIES  
67) WILL NOT BE ACCEPTED FOR REVIEW.

3 68) PRODUCT DATA NOT SUBMITTED IN THE FORM OF REPRODUCIBLE COPIES WILL NOT  
69) BE ACCEPTED FOR REVIEW, EXCEPT PRODUCT DATA SPECIFICALLY EXEMPTED FROM  
70) THE REPRODUCIBLE COPIES REQUIREMENT.

3 71) SHOP DRAWINGS, PRODUCT DATA AND SAMPLES NOT BEARING THE CONTRACTOR'S  
72) STAMP OF APPROVAL WILL NOT BE ACCEPTED FOR REVIEW.

3 73) SHOP DRAWINGS, PRODUCT DATA AND SAMPLES SUBMITTED WITHOUT SPECIFIED  
74) SPACE FOR APPROVAL STAMPS WILL NOT BE ACCEPTED FOR REVIEW.

3 75) SAMPLES WHICH ARRIVE WITHOUT THE TRANSPORTATION CHARGES PREPAID WILL  
76) NOT BE ACCEPTED FOR REVIEW.

3 77) THE FIRST TWO SUBMITTALS OF EACH SHOP DRAWING OR PRODUCT DATA WILL BE  
78) PROCESSED WITHOUT COST TO THE CONTRACTOR. BEGINNING WITH THE THIRD  
79) SUBMITTAL THE GOVERNMENT MAY CHARGE THE CONTRACTOR FOR THE COST OF  
80) SUCH SUBSEQUENT PROCESSING OF SHOP DRAWINGS AND PRODUCT DATA UNLESS AN  
81) APPROVED CHANGE ORDER IS ISSUED AFFECTING THE SHOP DRAWINGS AND  
82) PRODUCT DATA.

CENTRAL INTELLIGENCE AGENCY  
HEADQUARTERS EXPANSION  
BID PACKAGE 3SC  
SUPPLY CONTRACT - CHILLERS

DATE 11/28/83 TIME 17.929  
SHOP DRAWINGS, PRODUCT DATA  
AND SAMPLES

1 83) 3. TRANSMITTAL AND APPROVAL

2 84) TRANSMITTAL

3 85) TRANSMIT SHOP DRAWINGS, PRODUCT DATA AND SAMPLES USING TRANSMITTAL  
86) FORMS FURNISHED BY THE GOVERNMENT. FILL OUT TRANSMITTAL FORM.

4 87) INCOMPLETE OR ERRONEOUS TRANSMITTALS WILL BE RETURNED WITHOUT  
88) ACTION.

4 89) PORTIONS OF TRANSMITTAL FORM WILL BE COMPLETED BY THE GOVERNMENT.

3 90) RESUBMITTAL PROCEDURE SHALL FOLLOW SAME PROCEDURE AS THE INITIAL  
91) SUBMITTAL.

2 92) APPROVAL

3 93) GOVERNMENT'S STAMP ON CONTRACTOR'S SUBMITTAL CHECKED "APPROVED"  
94) (CODE NO. 1), OR "APPROVED AS NOTED" (CODE NO. 2). APPROVAL DOES NOT  
95) AUTHORIZE CHANGES TO CONTRACT SUM UNLESS STATED IN SEPARATE LETTER OR  
96) CHANGE ORDER.

3 97) UPON RECEIPT OF "APPROVED" OR "APPROVED AS NOTED" SUBMITTALS, MAKE  
98) NECESSARY COPIES FOR DISTRIBUTION TO PARTIES REQUIRING THE APPROVED  
99) INFORMATION.

2 100) DISAPPROVAL

3 101) GOVERNMENT'S STAMP CHECKED "REVISE AND RESUBMIT" (CODE NO. 3), OR  
102) "NOT APPROVED" (CODE NO. 4). RESUBMIT CORRECTED COPIES FOR FINAL  
103) APPROVAL. CORRECTION SHALL BE LIMITED TO ITEMS MARKED.

3 104) THE DISAPPROVAL OF SHOP DRAWINGS, PRODUCT DATA AND SAMPLES OR DELAY IN  
105) SUBMITTING OR RESUBMITTING SHOP DRAWINGS, PRODUCT DATA AND SAMPLES  
106) SHALL NOT BE DEEMED CAUSE FOR AN EXTENSION OF TIME.

2 107) THE GOVERNMENT MAY HOLD SHOP DRAWINGS, PRODUCT DATA AND SAMPLES IN CASES  
108) WHERE PARTIAL SUBMITTAL CANNOT BE REVIEWED UNTIL THE COMPLETE SUBMITTAL  
109) HAS BEEN RECEIVED OR WHERE SUCH SUBMITTAL CANNOT BE REVIEWED UNTIL  
110) ASSOCIATED ITEMS HAVE BEEN RECEIVED. WHEN SUCH SUBMITTALS ARE HELD BY THE  
111) GOVERNMENT, IT WILL SO ADVISE THE CONTRACTOR IN WRITING.

\*\*\*END OF SECTION

**Section 01340A - Appendix 'A'**  
**Government's Submittals Review Stamp**

3"

Date Received			
Document Control No.			
<b>General Services Administration</b>			
Smith, Hinchman & Grylls Associates, Inc.			
Architects Engineers Planners			
Reviewing is only for conformance with the design concept of the work and compliance with the information given in the Contract Documents.			
The Contractor is responsible for dimensions to be confirmed and correlated at the site; for information that pertains solely to the fabrication processes or to the means, methods, techniques, sequences and procedures of construction; and for coordination of the work of all trades.			
Highest Number Prevails		Code	
Approved		1	
Approved as Noted		2	
Revise and Resubmit		3	
Not Approved - Resubmit		4	
Dept.	Chkd.By	Date	Code
Arch.			
Struct.			
Mech.			
Elect.			
Civil			
Security			

7"

ARTICLE	INDEX	LINE
1. DELIVERY		1
2. UNLOADING AND POSSESSION		6
***END OF INDEX		

1	1)	1. DELIVERY
2	2) ALL DELIVERIES TO THE PROJECT FOR ALL CONTRACTS WILL BE ACCORDING TO	
	3) PRECISE SCHEDULES.	
2	4) PLAN AND EXECUTE DELIVERIES OF THE SUPPLIES ACCORDING TO THE SCHEDULE	
	5) WORKED OUT WITH THE INSTALLING CONTRACTOR.	
1	6)	2. UNLOADING AND POSSESSION
2	7) CONTRACTOR'S AUTHORIZED REPRESENTATIVE SHALL BE PRESENT AT ALL TIMES OF	
	8) ARRIVAL OF THE SUPPLIES AT THE PROJECT SITE, SHALL OBSERVE THE WORK OF	
	9) UNLOADING, AND SHALL CERTIFY TO THE CONTRACTING OFFICER, IN WRITING, THAT	
	10) THE SUPPLIES WERE UNLOADED WITHOUT DAMAGE, IF SUCH IS TRUE.	
2	11) POSSESSION OF THE SUPPLIES SHALL PASS FROM THE CONTRACTOR TO THE	
	12) INSTALLING CONTRACTOR AT MOMENT WHEN INSTALLING CONTRACTOR BEGINS TO MAKE	
	13) ATTACHMENTS FOR UNLOADING.	
2	14) POSSESSION BY INSTALLING CONTRACTOR SHALL IN NO WAY DIMINISH THE SUPPLY	
	15) CONTRACTOR'S RESPONSIBILITY FOR PROPER PERFORMANCE OF THE SUPPLIES IN THE	
	16) ABSENCE OF DAMAGE CAUSED BY INSTALLING CONTRACTOR'S OPERATIONS.	

\*\*\*END OF SECTION

ARTICLE	INDEX	LINE
CENTRAL LIQUID CHILLER REFRIGERATION MACHINES		1
***END OF INDEX		

1	1)	CENTRAL LIQUID CHILLER REFRIGERATION MACHINES
2	2) FURNISH FIVE (5) CENTRIFUGAL LIQUID CHILLER UNITS, WITH SPECIFIED	
	3) ACCESSORIES; CHILLER MANUFACTURER'S SHALL BE: YORK, CARRIER OR TRANE.	
2	4) FOR OPERATING ECONOMY, THE CHILLERS SHALL BE CAPABLE OF STARTING AND	
	5) OPERATING AT MINIMUM LOAD WITH THE ENTERING CONDENSER WATER TEMPERATURE	
	6) AT LEAST AS LOW AS 55 DEG. F.	
2	7) CHILLER PERFORMANCE SHALL BE RATED IN ACCORDANCE WITH THE AIR	
	8) CONDITIONING AND REFRIGERATION INSTITUTE (ARI) STANDARD 550; AMERICAN	
	9) NATIONAL STANDARDS INSTITUTE (ANSI) B9.1 AND B31.5, LATEST EDITIONS.	
2	10) EACH UNIT SHALL BE A COMPLETE FACTORY PACKAGE INCLUDING A CENTRIFUGAL	
	11) COMPRESSOR, OPEN OR HERMETIC MOTOR, COMPRESSOR MOTOR STARTER, COOLER,	
	12) CONDENSER AND PURGE OR PUMPOUT UNIT. UNIT SHALL BE FACTORY ASSEMBLED,	
	13) PIPED, WIRED AND LEAK TESTED. IF THE MANUFACTURER DOES NOT PROVIDE A UNIT	
	14) AS A COMPLETE FACTORY PACKAGE, THE INSTALLING CONTRACTOR WILL FURNISH THE	
	15) NECESSARY LABOR AND MATERIAL TO COMPLETE THE ASSEMBLY WITH THE	
	16) SUPERVISION OF THE MANUFACTURER'S REPRESENTATIVE. MANUFACTURER OF CHILLER	
	17) SHALL HAVE A FACTORY MAINTAINED SERVICE ORGANIZATION AND REPAIR PARTS	
	18) STOCK WITHIN A 50 MILE RADIUS. ALL COMPONENTS SHALL BE PROVIDED WITH	
	19) LIFTING EYES.	
2	20) EVAPORATOR AND CONDENSER SHALL BE OF SHELL AND TUBE TYPE DESIGN IN	
	21) ACCORDANCE WITH REQUIREMENTS OF THE ASME CODE FOR UNFIRED PRESSURE	
	22) VESSELS. REFRIGERANT SIDE SHALL BE PROOF-TESTED PER APPLICABLE CODE OR AT	
	23) 1.5 TIMES MAXIMUM DESIGN WORKING PRESSURE BUT NOT LESS THAN 45 PSIG. A	
	24) SAFETY RUPTURE DISC IN ACCORDANCE WITH ANSI/ASHRAE 15-1978 SAFETY CODE	
	25) SHALL BE PROVIDED FOR THE REFRIGERANT CIRCUIT.	
2	26) EACH TUBE SHALL BE INTEGRAL, EXTERNALLY FINNED, 3/4-INCH NOMINAL	
	27) DIAMETER, .045 INCH WALL THICKNESS, SEAMLESS COPPER WITH SMOOTH LANDS AT	
	28) ALL TUBE SUPPORTS. TUBES SHALL BE INDIVIDUALLY REPLACEABLE WITH TUBE ENDS	
	29) ROLLED INTO ANNULAR GROOVES IN THE TUBE SHEETS. EACH EVAPORATOR TUBE	
	30) SHALL BE ROLLED INTO THE INTERMEDIATE SUPPORT SHEETS.	
2	31) WATER BOXES SHALL BE DESIGNED FOR 150 PSIG MAXIMUM WORKING PRESSURE.	
	32) WATER SIDE SHALL BE HYDROSTATICALLY TESTED AT 1.5 TIMES WORKING PRESSURE.	
	33) WATER BOXES SHALL BE OF THE MARINE STYLE, WITH COVERS REMOVABLE WITHOUT	
	34) DISTURBING PIPING. CONDENSER AND CHILLED WATER BOX COVERS SHALL ALSO BE	
	35) HINGED. TAPS FOR VENTS AND DRAINS SHALL BE PROVIDED.	
2	36) EVAPORATOR SHALL HAVE ELIMINATORS INSTALLED ALONG ITS COMPLETE LENGTH	
	37) ABOVE THE TUBES TO PREVENT LIQUID REFRIGERANT FROM ENTERING THE	
	38) COMPRESSOR.	
2	39) LIQUID REFRIGERANT ENTERING EVAPORATOR SHALL BE DISTRIBUTED UNIFROMLY THE	
	40) ENTIRE LENGTH OF SHELL AND WITHOUT DIRECT IMPINGEMENT OF HIGH VELOCITY	
	41) REFRIGERANT ON TUBES.	
2	42) FOR STANDARD WATER SELECTIONS, MINIMUM ALLOWABLE REFRIGERANT TEMPERATURE	
	43) SHALL BE 34 F. AT THE DESIGN CONDITIONS HEREINAFTER SPECIFIED.	
2	44) RELIEF DEVICES SHALL BE PROVIDED FOR THE REFRIGERANT SIDE, IN ACCORDANCE	
	45) WITH ANSI B9.1 SAFETY CODE AND LOCAL CODE. MULTIPLE RELIEF DEVICES SHALL	
	46) BE BROUGHT TO A COMMON VENT CONNECTION.	
2	47) COMPRESSOR SHALL BE OF THE CENTRIFUGAL TYPE, DIRECT OR GEAR-DRIVEN.	
	48) MAXIMUM SPEED FOR GEAR-DRIVEN MACHINES SHALL BE 7000 RPM.	

2 49) COMPRESSOR IMPELLERS SHALL BE HIGH STRENGTH ALUMINUM ALLOY, BALANCED BOTH  
50) STATICALLY AND DYNAMICALLY. IMPELLER SHALL BE PROOF-TESTED AT LEAST 15  
51) PERCENT ABOVE DESIGN OPERATING SPEED.

2 52) COMPRESSOR ASSEMBLY SHALL BE RUN-TESTED AT THE FACTORY. VIBRATION SHALL  
53) NOT EXCEED 1.0 MIL AT THE COMPRESSOR HOUSING.

2 54) CAPACITY CONTROL SHALL BE BY VARIABLE INLET GUIDE VANES, CAPABLE OF  
55) MODULATING PERFORMANCE FROM 10 PERCENT TO 100 PERCENT RATED UNIT CAPACITY  
56) AT DESIGN CONDITIONS. MINIMUM CAPACITY OF 10 PERCENT SHALL BE ATTAINED  
57) WITHOUT SURGING OR ADJUSTING REFRIGERANT CHARGE. AUTOMATIC HOT GAS  
58) BYPASS, IF REQUIRED, SHALL BE PROVIDED TO ALLOW OPERATION AT 10 PERCENT  
59) LOAD. MINIMUM CONDENSER WATER TEMPERATURE IS TO BE 55 DEGREES F.

2 60) MOTOR SHALL BE CONTINUOUS DUTY, SQUIRREL CAGE INDUCTION TYPE, AND SHALL  
61) HAVE AN OPEN DRIP-PROOF OR HERMETIC DESIGN ENCLOSURE. MOTOR FULL-LOAD  
62) AMPERES (FLA) AT DESIGN CONDITIONS SHALL NOT EXCEED MOTOR NAMEPLATE FLA.  
63) MOTOR SHALL BE FACTORY MOUNTED AND ALIGNED WITH THE COMPRESSOR. MOTOR  
64) SHALL BE DESIGNED FOR USE WITH THE TYPE STARTER SPECIFIED.

2 65) A POSITIVE DISPLACEMENT SUBMERGED OIL PUMP SHALL PROVIDE LUBRICATION TO  
66) ALL PARTS REQUIRING OIL. PROVISIONS SHALL BE INCLUDED FOR CONTROLLED  
67) HEATING OF OIL. HEATER SHALL BE SELECTED TO MAINTAIN OIL AT 150 DEGREES  
68) F. DURING SHUT-DOWN TO MINIMIZE AFFINITY FOR REFRIGERANT. THE OIL PUMP  
69) SHALL BE SUITABLE FOR OPERATION ON 120-VOLT SINGLE PHASE POWER. THIS  
70) POWER SHALL BE SUPPLIED THROUGH THE CONTROL POWER TRANSFORMER.

2 71) THE UNIT MANUFACTURER SHALL PROVIDE A FULLY AUTOMATIC, FACTORY INSTALLED  
72) OIL RETURN SYSTEM TO REMOVE THE OIL FROM THE LIQUID REFRIGERANT DURING  
73) CHILLER OPERATION. THE OIL RETURN SYSTEM SHALL CONTINUOUSLY MAINTAIN THE  
74) PROPER OIL LEVEL IN THE COMPRESSOR OIL SUMP AND PREVENT THE COLLECTION OF  
75) OIL IN THE EVAPORATOR.

2 76) LUBRICATION SYSTEM SHALL BE PROVIDED WITH TWO HIGH OIL TEMPERATURE  
77) CUTOUTS: ONE IN THE BEARING OIL OUTLET AND ONE IN THE OIL PUMP DISCHARGE.

2 78) A REFRIGERANT OR WATER COOLED OIL COOLER SHALL BE PROVIDED. EXTERNAL  
79) WATER SOURCE TO BE CHILLED WATER. IF THE OIL COOLER IS WATER COOLED THE  
80) INSTALLING CONTRACTOR WILL FURNISH AND INSTALL NECESSARY AUXILIARY WATER  
81) PIPING, VALVES AND CONTROLS TO THE OIL COOLER. COMPLETE LUBRICATION  
82) SYSTEM SHALL BE FACTORY INSTALLED AND PIPED.

2 83) MOTOR WINDING TEMPERATURE SENSORS SHALL BE LOCATED IN THE MOTOR WINDING  
84) OF EACH PHASE OF COMPRESSOR MOTORS. SENSORS SHALL INDEPENDENTLY STOP THE  
85) COMPRESSOR MOTOR IF EXCESSIVE TEMPERATURE IS SENSED IN ANY OF THE THREE  
86) WINDINGS. A FULL SET OF SPARE SENSORS SHALL BE PROVIDED WITH WIRING TO  
87) CONTROL PANEL.

2 88) LOW VOLTAGE AND SINGLE-PHASE PROTECTION (PHASE FAILURE) SHALL BE PROVIDED  
89) BY MEANS OF AN ANSI NO. 47 SEQUENCE VOLTAGE RELAY.

2 90) UNITS THAT OPERATE AT SUB-ATMOSPHERIC PRESSURE (R-11, R-113, R-114) SHALL  
91) BE PROVIDED WITH A COMPLETE PURGE UNIT, PROVIDING POSITIVE MEANS FOR  
92) COLLECTION, RETURN OF REFRIGERANT AND REMOVAL OF NON-CONDENSABLES. A  
93) SIGNAL LIGHT ON THE CONTROL CENTER SHALL BE PROVIDED WHICH WILL ALERT THE  
94) OPERATOR AT OCCURRENCE OF EXCESSIVE PURGING, INDICATING AN ABNORMAL AIR  
95) LEAK INTO THE UNIT.

2 96) PURGE UNIT SHALL BE PROVIDED WITH THE FOLLOWING:

7 97) SIGHT GLASS OIL LEVEL INDICATOR.

7 98) ELECTRICALLY HEATED OIL SEPARATOR.

7 99) SECTIONALIZED DRUM PERMITTING SEPARATION OF NONCONDENSABLE  
100) GASES AND WATER FROM DISCHARGE OF COMPRESSOR PURGE.

7 101) MEANS FOR RETURNING REFRIGERANT TO EVAPORATOR AND FOR  
102) DRAWING OFF NONCONDENSABLES.

7 103) SOLENOID VALVE TO AUTOMATICALLY ISOLATE PURGE SYSTEM  
104) FROM CENTRIFUGAL MACHINE WHEN PURGE COMPRESSOR IS NOT  
105) IN OPERATION.

7 106) WATER CONNECTIONS TO ALLOW OPERATION OF THE PURGE  
107) SYSTEM WHEN CENTRIFUGAL MACHINE IS NOT IN OPERATION.

2 108) UNITS THAT OPERATE ABOVE 15 PSIG (R12, R-22, R-500) SHALL BE PROVIDED  
109) WITH A SEPARATE COMPRESSOR OPERATED TRANSFER UNIT AND SEPARATE STORAGE  
110) RECEIVER TO PERMIT REMOVAL AND ISOLATION OF THE FULL REFRIGERANT CHARGE  
111) ALLOWING INTERNAL INSPECTION OF THE CONDENSER, EVAPORATOR AND CENTRIFUGAL  
112) COMPRESSOR. THE STORAGE RECEIVER SHALL BE ASME CODE CONSTRUCTED AND  
113) STAMPED, AND FURNISHED WITH ANSI B9.1 SAFETY CODE AND LOCAL CODE. PUMPOUT  
114) SYSTEM SHALL BE SUPPLIED AND WARRANTED BY THE CENTRIFUGAL MACHINE  
115) MANUFACTURER. IT SHALL BE PRE-PIPED AND PRE-WIRED COMPLETE WITH FUSED  
116) DISCONNECT, STARTER AND CONTROLS HOUSED IN A NEMA 1 ENCLOSURE. EACH UNIT  
117) SHALL HAVE ITS OWN COMPLETE PUMP-OUT SYSTEM. THE INSTALLING CONTRACTOR  
118) WILL FURNISH AND INSTALL NECESSARY AUXILIARY WATER PIPING AND VALVES TO  
119) TRANSFER UNIT CONDENSER.

2 120) EACH CHILLER SHALL BE EQUIPPED WITH AN ELECTRIC CONTROL PANEL AND INCLUDE  
121) THE FOLLOWING.

3 122) THREE-PHASE ELECTRONIC CURRENT LIMITING WITH INDIVIDUAL CURRENT  
123) TRANSFORMERS.

4 124) ELECTRONIC CURRENT LIMITER SHALL LIMIT THE MAXIMUM AMPERAGE DRAWN  
125) BY THE COMPRESSOR MOTOR BY MONITORING ALL THREE PHASES OF SUPPLY  
126) POWER. THE INLET GUIDE VANES SHALL MODULATE IN RESPONSE TO THE  
127) MAXIMUM AMPERAGE DRAWN BY ANY ONE OF THE THREE PHASES.

4 128) CONTINUOUS VARIABLE POSITION DEMAND LIMITER SHALL PERMIT MANUAL  
129) CONTROL OF POWER DEMAND AT ALL OPERATING POINTS FROM 40 TO 100  
130) PERCENT OF FULL LOAD POWER.

3 131) CAPACITY CONTROL

4 132) SELF-CONTAINED ELECTRIC TEMPERATURE CONTROL SYSTEM, INCLUDING  
133) TEMPERATURE SENSOR, VANE ACTUATOR AND INTEGRATED CIRCUIT SOLID  
134) STATE CONTROLS.

4 135) PRECISE CONTROL OF DEADBAND RANGE SHALL BE FIELD ADJUSTABLE FROM  
136) PLUS OR MINUS 1/4 DEG. F TO PLUS OR MINUS 1-1/2 DEG. F.

4 137) UNIT SHALL INCLUDE A MANUAL FOUR-POSITION (HOLD, LOAD, UNLOAD OR  
138) AUTOMATIC) DIAGNOSTIC SWITCH FOR EASE OF MAINTENANCE.

4 139) INDIVIDUAL LIGHTS SHALL INDICATE WHEN MACHINE IS LOADING,  
140) UNLOADING, OR IF AUTOMATIC CURRENT LIMITING IS OCCURRING.

4 141) LOW REFRIGERANT TEMPERATURE OVERRIDE TO AUTOMATICALLY CLOSE THE  
142) GUIDE VANES AND STOP THE COMPRESSOR IF LOW REFRIGERANT TEMPERATURE  
143) IS DETECTED.

4 144) A METHOD TO MAINTAIN CAPACITY INLET GUIDE VANES IN CLOSED POSITION  
145) DURING COMPRESSOR START-UP.

4 146) AN ADJUSTABLE ANTIRECYCLE TIMER TO ENSURE 30-MINUTE INTERVAL  
147) BETWEEN SUCCESSIVE COMPRESSOR MOTOR STARTS. TIMER TO BE ACTIVATED  
148) AT "START".

4 149) INDIVIDUAL, FRONT ADJUSTABLE GAUGES TO INDICATE CONDENSER,  
150) EVAPORATOR, OIL AND PURGE DRUM PRESSURES. GAUGES SHALL BE ORIFICED  
151) TO PREVENT EXCESSIVE SENSITIVITY AND MOVEMENT OF GAUGE INDICATORS.

4 152) TIMER TO PROVIDE OPERATION OF OIL PUMP DURING PRELUBE AND POST-LUBE CYCLES.

4 153) 154) SWITCH TO PERMIT MANUAL OR AUTOMATIC OPERATION OF THE PURGE SYSTEM.

4 155) 156) 157) 158) 159) 160) 161) 162) 163) THE FOLLOWING SAFETY CONTROLS SHALL BE WIRED IN THE MAIN CONTROL POWER CIRCUIT TO THE STARTER: LOW EVAPORATOR TEMPERATURE, HIGH CONDENSER PRESSURE, HIGH MOTOR TEMPERATURE, HIGH LUBE OIL TEMPERATURE AND LOW OIL PRESSURE CONTROLS SHALL BE WIRED TO INDEPENDENTLY STOP THE COMPRESSOR MOTOR. ADDITIONALLY, EACH OF THESE CONTROLS SHALL BE WIRED THROUGH A FAULT TRIP INDICATOR TO PROVIDE A DOUBLE BREAK OF ALL SAFETY LOCKOUT SYSTEMS. METHOD TO PROVIDE FIRST-OUT INDICATION OF FAULT SHALL BE PROVIDED. MANUAL RESET OF THE FAULT TRIP INDICATOR SHALL BE REQUIRED.

4 164) 165) 166) 167) 168) ONE ADDITIONAL NORMALLY CLOSED ALARM CONTACT (CONVERTIBLE TO NORMALLY OPEN CONTACTS ON EACH FAULT TRIP INDICATOR) TO ALLOW REMOTE ANNUNCIATION OF ANY OF THE FOLLOWING CONDITIONS: LOW EVAPORATOR TEMPERATURE, HIGH CONDENSER PRESSURE, HIGH MOTOR TEMPERATURE, LOW OIL PRESSURE AND ELECTRICAL OVERLOAD.

4 169) 170) 171) A 4160/120 VOLT TRANSFORMER SHALL SUPPLY 120-VOLT POWER SUPPLIES INDIVIDUALLY FUSED TO SERVE: CONTROL CIRCUIT, OIL PUMP SYSTEM CIRCUIT, OIL HEATER CIRCUIT AND PURGE CIRCUIT.

4 172) 173) 174) 175) 176) FACTORY INSTALLED CONTROL PANEL LIGHTS TO INDICATE SEQUENTIAL START-UP AND OPERATION OF THE CHILLER, INCLUDING: SAFETIES, SATISFIED, COOLING REQUIRED, RESTART TIME ELAPSED, CHILLED WATER PUMP, CONDENSER WATER PUMP, OIL PUMP AND SYSTEM. PROVIDE ELAPSED TIME METER AND STARTS COUNTER.

4 177) 178) 179) CAPABILITY OF INTERFACING WITH TYPICAL BUILDING ENERGY MANAGEMENT SYSTEMS (DIRECT CURRENT LOAD SHED SIGNALS) TO REDUCE TOTAL ELECTRICAL PEAK DEMAND.

4 180) CAPACITY CONTROL MECHANISM WHICH PROVIDES UNLOADED START-UP.

2 181) EACH UNIT SHALL BE FACTORY ANTI-SWEAT INSULATED WITH FLEXIBLE CLOSED CELL INSULATION. INSULATION SHALL BE APPLIED TO THE COOLER PORTION OF THE SHELL AT MINIMUM THICKNESS 3/4 INCH. THE SAME TYPE INSULATION SHALL BE APPLIED TO COMPRESSOR SUCTION PIPING AND OTHER REFRIGERANT PIPING AS NECESSARY.

2 186) THE UNIT MANUFACTURER SHALL FURNISH THE COMPLETE INITIAL CHARGE OF REFRIGERANT AND LUBRICATING OIL, CHILLED WATER AND CONDENSER WATER FLOW SWITCHES, AND FOUR VIBRATION ISOLATION MOUNTS CONSISTING OF 5/8 INCH STEEL MOUNTING PLATES WITH 1 INCH THICK NEOPRENE ISOLATION PADS.

2 190) REMOTE MOUNTED STARTERS

3 191) 192) 193) COMPRESSOR MOTOR STARTER SHALL BE SUPPLIED BY THE CENTRIFUGAL CHILLER MANUFACTURER. STARTER SHALL BE A 5 KV PRIMARY REACTOR TYPE ENCLOSED IN A FREE STANDING NEMA-1 ENCLOSURE.

3 194) 195) THE STARTER PANEL DOOR SHALL BE HINGED AND SHALL BE CAPABLE OF BEING PADLOCKED TO PREVENT ACCESS BY UNAUTHORIZED PERSONNEL.

3 196) 197) 198) 199) 200) THE AMBIENT TEMPERATURE INSIDE THE STARTER PANEL SHALL NOT EXCEED 155 DEG. F (67 DEG. C) WITH ALL COMPONENTS ENERGIZED AT RATED LOAD CONDITIONS AND 104 DEG. F (40 DEG. C) AMBIENT OUTSIDE THE STARTER PANEL. TEMPERATURE RISE OF COMPONENTS SHALL BE PER RELATED NEC, NEMA AND UL CODES.

3 201) 202) 203) 204) A PERMANENT NAMEPLATE SHALL BE PROVIDED AND MOUNTED ON THE STARTER PANEL. IT SHALL IDENTIFY THE MANUFACTURER, SERIAL OR MODEL NUMBER IDENTIFYING THE DATE OF MANUFACTURE AND COMPONENT REPLACEMENT PARTS AND ALL CURRENT AND VOLTAGE RATINGS.

HEADQUARTERS EXPANSION  
BID PACKAGE 3SC  
SUPPLY CONTRACT - CHILLERS

4 205) THE OVERLOAD SYSTEM, CONSISTING OF ANSI NO. 50 INSTANTANEOUS  
206) OVERCURRENT OR RATE OF RISE RELAYS, SHALL BE COORDINATED WITH THE  
207) COMPRESSOR MOTOR AND FACTORY SET AND LABELED WITH THE COMPRESSOR  
208) MOTOR RATED LOAD AMPS (RLA), LOCKED ROTOR AMPS (LRA) AND OVERLOAD  
209) TRIP (OLT) SETTINGS, AND SHALL PROVIDE:

5 210) EXCESSIVE LOCKED ROTOR TIME PROTECTION.

5 211) CURRENT CONTROL OF TRANSITION FROM START TO RUN CONFIGURATION.

5 212) MAXIMUM CURRENT PROTECTION TO PREVENT THE COMPRESSOR MOTOR FROM  
213) EXCEEDING ITS OLT SETTING.

5 214) PROTECTION OF EQUIPMENT AGAINST TRANSITION RESISTOR FAILURE.

5 215) A FAULT TRIP INDICATOR, "MOTOR OVERLOAD" SHALL BE LOCATED IN  
216) THE DOOR OF THE STARTER PANEL ENCLOSURE. THIS FAULT INDICATOR  
217) SHALL BE DISPLAYED IF ANY OF THE ABOVE CONDITIONS ARE SENSED AND  
218) SHALL CAUSE THE MACHINE TO BE SHUT DOWN. THIS FAULT SHALL  
219) REQUIRE MANUAL RESET. ELECTRONIC DIGITAL TIMING SHALL BE  
220) PROVIDED BY THE OVERLOAD SYSTEM FOR REPEATABILITY AND ACCURACY.  
221) A NORMALLY CLOSED ALARM CONTACT SHALL BE PROVIDED FOR REMOTE  
222) ANNUNCIATION OF ANY OF THE ABOVE CONDITIONS.

4 223) THE THREE-PHASE OVERLOAD SYSTEM SHALL BE FIELD SET FOR PURPOSES OF  
224) COORDINATION WITH OTHER ELECTRICAL PROTECTION DEVICES.

3 225) TO PREVENT THE INCREASINGLY COMMON RAPID RECLOSE FEATURE OF UTILITY  
226) POWER DISTRIBUTION SYSTEMS FROM ADVERSELY AFFECTING THE MECHANICAL AND  
227) POWER DRIVE EQUIPMENT, DISTRIBUTION FAULT PROTECTION SHALL BE  
228) PROVIDED.

4 229) THE DISTRIBUTION FAULT PROTECTION SHALL CONSIST OF THREE-PHASE  
230) CURRENT SENSING AND MONITORING THE STATUS OF THE STARTER. IF A  
231) DISTRIBUTION FAULT IS DETECTED, THE FAULT TRIP INDICATOR  
232) "DISTRIBUTION FAULT" SHALL BE DISPLAYED AND MANUAL RESET SHALL BE  
233) REQUIRED. DISTRIBUTION FAULTS OF 1-1/2 ELECTRICAL CYCLES DURATION  
234) SHALL BE DETECTED AND THE COMPRESSOR MOTOR SHALL BE DISCONNECTED  
235) WITHIN SIX ELECTRICAL CYCLES.

3 236) DIFFERENTIAL PROTECTION

4 237) ALL MOTOR ARMATURE LEADS SHALL BE EXTENDED FOR THE APPLICATION OF  
238) DIFFERENTIAL RELAYING PROTECTION. PROVIDE SIX CURRENT TRANSFORMERS  
239) (MATCHED) AND THREE DIFFERENTIAL RELAYS (ANSI NO. 87).

3 240) POWER SUPPLY TERMINALS SHALL BE IDENTIFIED BY PERMANENT MARKERS. THE  
241) MAXIMUM TEMPERATURE OF TERMINALS SHALL NOT EXCEED 167 DEG. F (75 DEG.  
242) C) WHEN THE EQUIPMENT IS TESTED IN ACCORDANCE WITH ITS RATING.-

3 243) CONTACTORS SHALL BE UL RECOGNIZED FOR AIR CONDITIONING AND  
244) REFRIGERATION (DEFINITE PURPOSE) USE. THEY SHALL BE RATED IN VOLTAGE,  
245) CONTINUOUS RATED LOAD AMPERES (RLA) AND LOCKED ROTOR AMPERES (LRA).  
246) THE RATING SHALL EQUAL TO OR GREATER THAN THE REQUIREMENTS SPECIFIED  
247) ON THE COMPRESSOR MOTOR NAMEPLATE.

3 248) ALL WIRES, BUS BARS AND FITTINGS SHALL BE COPPER ONLY, EXCEPT THE  
249) INTERNAL WIRE OF THE CONTROL TRANSFORMER WHICH MAY BE ALUMINUM IF  
250) COPPER TERMINATION IS PROVIDED.

3 251) DISCONNECTING MEANS IN THE FORM OF A NON-LOAD BREAK, HIGH INTERRUPTING  
252) CAPACITY (34,000 AMPS RMS SYMMETRICAL), FUSED DISCONNECT SHALL BE  
253) PROVIDED FOR SHORT CIRCUIT PROTECTION.

3 254) A 120-VOLT SINGLE-PHASE POWER SUPPLY SHALL BE DEVELOPED WITHIN THE  
255) THREE-PHASE COMPRESSOR MOTOR STARTER AND SHALL BE IN ACCORDANCE WITH  
256) THE CHILLER MANUFACTURER'S SPECIFICATIONS. A METALLIC SEPARATOR SHALL  
257) BE PROVIDED BETWEEN THE HIGH AND LOW VOLTAGE SYSTEMS SECTIONS.

3 258) THE STARTER SHALL BE EQUIPPED WITH TWO "PILOT" RELAYS TO INITIATE  
259) THE MAIN CENTRIFUGAL STARTER SEQUENCE. THESE RELAYS SHALL BE A  
260) SELF-MONITORING SAFETY CIRCUIT WHICH SHALL INDICATE IMPROPER OPERATION  
261) (SLOW OPERATION, WELDING OF CONTACTS, ETC.) AND SHALL CAUSE THE UNIT  
262) TO BE SHUT DOWN AND A FAULT TRIP INDICATOR TO BE DISPLAYED. THE  
263) "STARTER CIRCUIT FAULT" INDICATOR SHALL BE LOCATED IN THE DOOR OF  
264) THE ENCLOSURE AND SHALL REQUIRE MANUAL RESET.

3 265) A LOCKOUT TRANSITION SAFETY CIRCUIT SHALL BE PROVIDED TO PREVENT  
266) DAMAGE FROM PROLONGED ENERGIZATION DUE TO MALFUNCTION OF THE  
267) TRANSITION CONTACTOR. MALFUNCTION SHALL CAUSE THE MACHINE TO BE SHUT  
268) DOWN AND THE "STARTER CIRCUIT FAULT" INDICATOR TO BE DISPLAYED.

3 269) THE THREE-PHASE OVERLOAD SYSTEM SHALL PROVIDE PROTECTION TO THE  
270) COMPRESSOR MOTOR.

3 271) TERMINAL CONNECTION PADS SHALL BE PROVIDED TO WHICH CUSTOMER APPLIED  
272) LUGS CAN BE ATTACHED. PROVIDE SUFFICIENT SPACE FOR STRESS CONE  
273) TERMINATION.

3 274) PROVIDE THREE (3) AMMETERS CALIBRATED FOR INDICATING INRUSH CURRENT.

3 275) A GROUND FAULT RELAY (ANSI NO. 64) SHALL OPEN STARTER CONTACTS WHEN  
276) THE DIELECTRIC RESISTANCE IS SIGNIFICANTLY REDUCED IN EITHER THE  
277) STARTER OR COMPRESSOR MOTOR. INDICATION AND RESET SHALL BE LOCATED IN  
278) THE STARTER DOOR.

2 279) CAPACITY

3 280) EACH OF THE FIVE UNITS SHALL HAVE A CAPACITY OF 1600 TONS OF  
281) REFRIGERATION, DELIVERING 2400 GPM OF CHILLED WATER COOLED FROM 58 DEG  
282) F. TO 42 DEG F. WHEN SUPPLIED WITH 4800 GPM OF CONDENSER WATER AT 85  
283) DEG F. WITH A 10 DEG F. TEMPERATURE RISE.

3 284) WATER TUBE VELOCITY THRU THE CONDENSER AND THE CHILLER SHALL NOT  
285) EXCEED 10 FPS.

3 286) CONDENSER AND CHILLER SIDE FOULING FACTORS SHALL BE .0005.

2 287) FACTORY TESTS

3 288) A FACTORY TEST OF EACH MACHINE SHALL INCLUDE THE FOLLOWING:

4 289) HYDROSTATIC STRENGTH TEST AND REFRIGERANT LEAK TEST OF COMPRESSOR  
290) CASING.

4 291) AIR PRESSURE STRENGTH TEST AND REFRIGERANT LEAK TEST ON BOTH THE  
292) SHELL AND TUBE SIDES OF THE CONDENSER, EVAPORATOR, INTER COOLER AND  
293) PUMPOUT RECEIVER (WHERE APPLICABLE).

2 294) START-UP SERVICE

3 295) MANUFACTURER SHALL FURNISH A FACTORY-TRAINED SERVICE ENGINEER DURING  
296) THE START-UP PERIOD OF EACH MACHINE. THE SERVICE ENGINEER SHALL  
297) PERFORM LEAK TESTING, EVACUATION AND DEHYDRATION USING A HIGH VACUUM  
298) PUMP FURNISHED BY THE MANUFACTURER, CHARGING THE UNIT, START-UP AND  
299) INSTRUCTION OF GOVERNMENT'S PERSONNEL ON OPERATION AND MAINTENANCE.  
300) START-UP SHALL BE PERFORMED BY THE MANUFACTURE'S SERVICE ENGINEER;  
301) SUPERVISION OF CONTRACTOR PERSONNEL PERFORMING THE START-UP WORK, IS  
302) NOT ACCEPTABLE. MANUFACTURER SHALL PROVIDE OPERATING INSTRUCTIONS AND  
303) PARTS LIST. REFER TO SPECIAL CONDITIONS. THE COST OF THIS START-UP  
304) SERVICE SHALL BE INCLUDED IN THE MANUFACTURER'S BID PRICE.

3 305) THE MANUFACTURER SHALL PROVIDE THE GOVERNMENT EXTRA REFRIGANT AND OIL  
306) OF A SUFFICIENT QUANTITY TO COMPLETELY RE-CHARGE ONE MACHINE.

3 307) THE MANUFACTURER SHALL PROVIDE THE GOVERNMENT WITH COOLER AND  
308) CONDENSER TUBE BRUSHES.

\*\*\*END OF SECTION